ML-82
(Gas/Steam)
Exhaust Addendum

WARNING: For your safety the information in this addendum ***must be*** followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or death.

DO NOT store or use gasoline or other flammable vapor and liquids in the vicinity of this or any other appliance.

IMPORTANT

This is an Exhaust Addendum Only. For other specific requirements, refer to the Installation/Operator's Manual included in the dryer.

For replacement parts, contact the distributor from which the dryer was purchased or
American Dryer Corporation
88 Currant Road
Fall River MA 02720-4781
Telephone: (508) 678-9000 / Fax: (508) 678-9447
E-mail: techsupport@amdry.com

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ADC Part No. 113080

Retain This Addendum In A Safe Place For Future Reference

American Dryer Corporation products embody advanced concepts in engineering, design, and safety. If this product is properly maintained, it will provide many years of safe, efficient, and trouble-free operation.

ONLY qualified technicians should service this equipment.

OBSERVE ALL SAFETY PRECAUTIONS displayed on the equipment or specified in the installation/operator's manual included with the dryer.

The following "**FOR YOUR SAFETY**" caution **must be** posted near the dryer in a prominent location.

FOR YOUR SAFETY	POUR VOTRE SÉCURITÉ
Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.	Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de yout autre appareil.

We have tried to make this manual as complete as possible and hope you will find it useful. **ADC** reserves the right to make changes from time to time, without notice or obligation, in prices, specifications, colors, and material, and to change or discontinue models.

Important

For your convenience, log the following information:

DATE OF PURCHASE _____ **MODEL NO.** **ML-82**

DISTRIBUTORS NAME _____

Serial Number(s) _____

_____

_____

Replacement parts can be obtained from your distributor or the **ADC** factory. When ordering replacement parts from the factory, you can FAX your order to **ADC** at (508) 678-9447 or telephone your orders directly to the **ADC** Parts Department at (508) 678-9000. Please specify the dryer **model number** and **serial number** in addition to the **description** and **part number**, so that your order is processed accurately and promptly.

The illustrations on the following pages may not depict your particular dryer exactly. The illustrations are a composite of the various dryer models. Be sure to check the descriptions of the parts thoroughly before ordering.

"IMPORTANT NOTE TO PURCHASER"

Information must be obtained from your local gas supplier on the instructions to be followed if the user smells gas. These instructions must be posted in a prominent location near the dryer.

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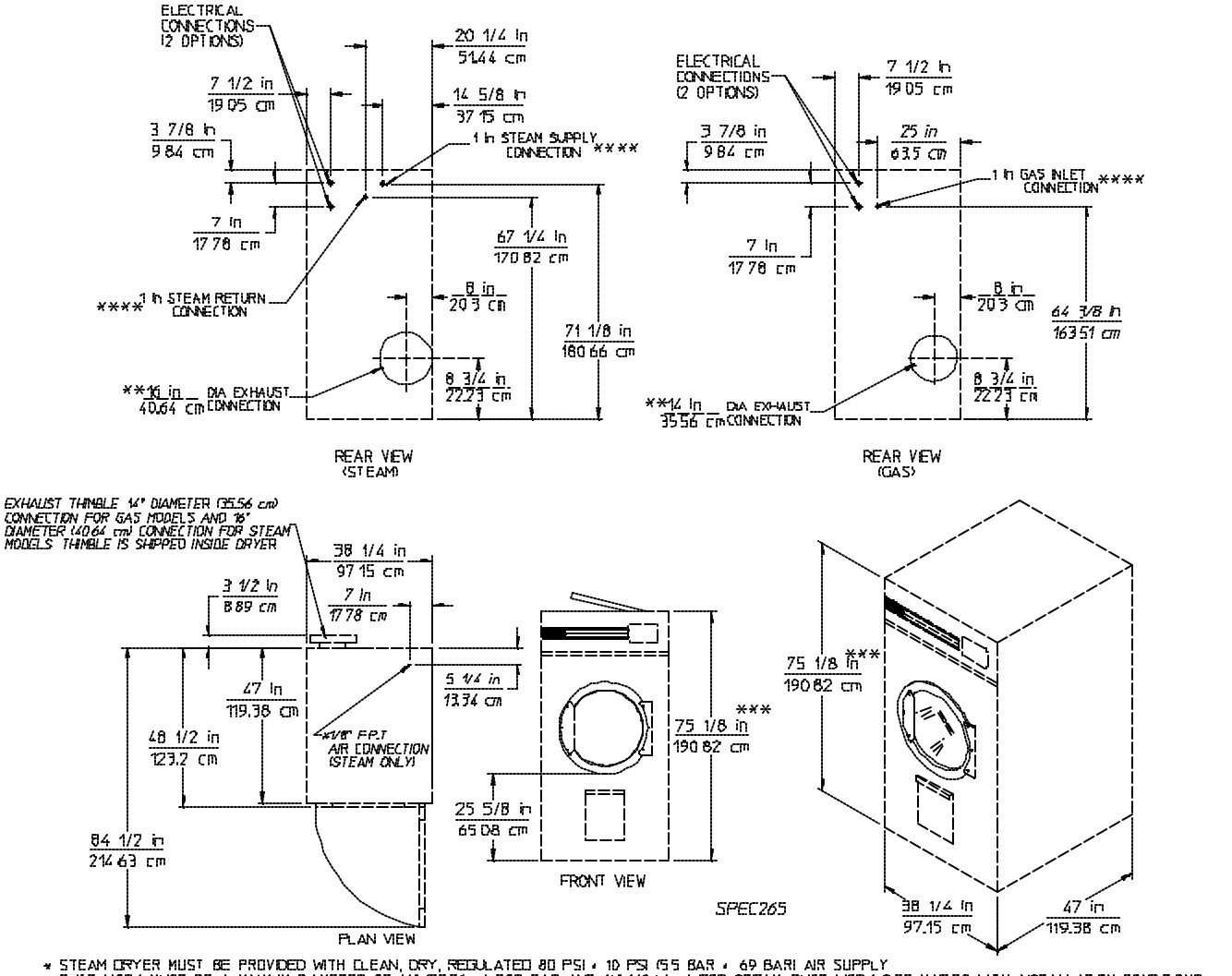
A. SPECIFICATIONS

MLG-82 (Gas)
MLS-82 (Steam)


ELECTRICAL CONNECTIONS (2 OPTIONS)
20 1/4 in 51.44 cm
7 1/2 in 19.05 cm
14 5/8 in 37.15 cm
3 7/8 in 9.84 cm
1 in STEAM SUPPLY CONNECTION ****
7 in 17.78 cm
67 1/4 in 170.82 cm
**** 1 in STEAM RETURN CONNECTION
8 in 20.3 cm
71 1/8 in 180.66 cm
**16 in 40.64 cm DIA EXHAUST CONNECTION
8 3/4 in 22.23 cm
REAR VIEW (STEAM)
ELECTRICAL CONNECTIONS (2 OPTIONS)
7 1/2 in 19.05 cm
3 7/8 in 9.84 cm
25 in 63.5 cm
1 in GAS INLET CONNECTION ****
7 in 17.78 cm
8 in 20.3 cm
64 3/8 in 163.51 cm
**14 in 35.56 cm DIA EXHAUST CONNECTION
8 3/4 in 22.23 cm
REAR VIEW (GAS)
EXHAUST THIMBLE 14" DIAMETER (35.56 cm) CONNECTION FOR GAS MODELS AND 16" DIAMETER (40.64 cm) CONNECTION FOR STEAM MODELS THIMBLE IS SHIPPED INSIDE DRYER
38 1/4 in 97.15 cm
3 1/2 in 8.89 cm
7 in 17.78 cm
47 in 119.38 cm
5 1/4 in 13.34 cm
48 1/2 in 123.2 cm
1x1/8" F.P.T. AIR CONNECTION (STEAM ONLY)
84 1/2 in 214.63 cm
PLAN VIEW
75 1/8 in 190.82 cm ***
25 5/8 in 65.08 cm
FRONT VIEW
SPEC265
75 1/8 in 190.82 cm ***
38 1/4 in 97.15 cm
47 in 119.38 cm

* STEAM DRYER MUST BE PROVIDED WITH CLEAN, DRY, REGULATED 80 PSI ÷ 10 PSI (5.5 BAR ÷ .69 BAR) AIR SUPPLY
** DUCT WORK MUST BE A MINIMUM DIAMETER OF 14" (35.56cm) FOR GAS AND 16" (40.64cm) FOR STEAM DUCT WORK SIZE VARIES WITH INSTALLATION CONDITIONS
*** OPERATING HEIGHT FOR STEAM UNIT IS 81" (205.74cm)
**** SIZE OF PIPING TO DRYER VARIES WITH INSTALLATION CONDITIONS, CONTACT FACTORY FOR ASSISTANCE.

GS 10/21/98

NOTE: Duct work size varies with installation conditions.

NOTE: **ADC** reserves the right to make changes in specifications at any time, without notice or obligation.

WARNING

An exhaust duct transition piece is shipped inside of the dryer's tumbler and **MUST** be installed on the dryer's exhaust duct, with the hardware provided, **BEFORE** location venting is connected to the dryer.

THIS EXHAUST DUCT TRANSITION PIECE MUST BE INSTALLED FIRST!

Failure to observe this installation requirement may result in damage to the dryer, create a **FIRE HAZARD** and will **VOID** the manufacturer's warranty.

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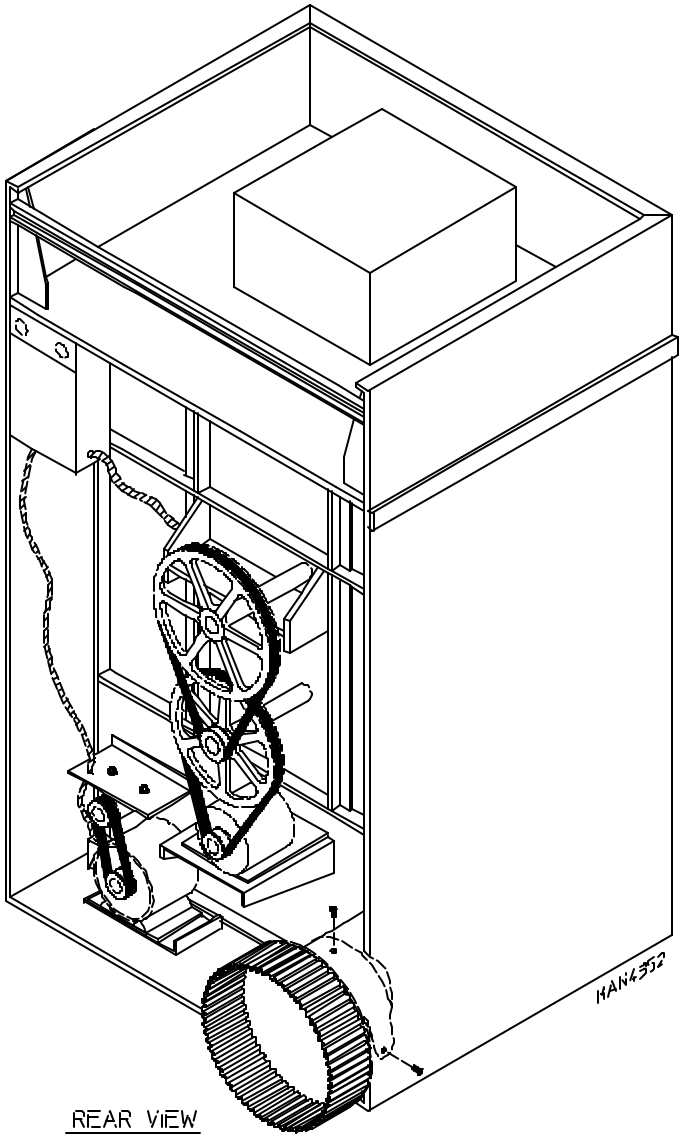
B. UNPACKING/SETTING UP

1. Inside the tumbler (basket) of this dryer is an exhaust transition piece that **must be** installed on the outlet of the exhaust before any further venting is connected. To do this, follow the procedures listed below;

   a. Remove the exhaust transition piece from the tumbler (basket) and place it on the exhaust outlet.

   b. Using the screws provided, secure the exhaust transition piece to the dryer.

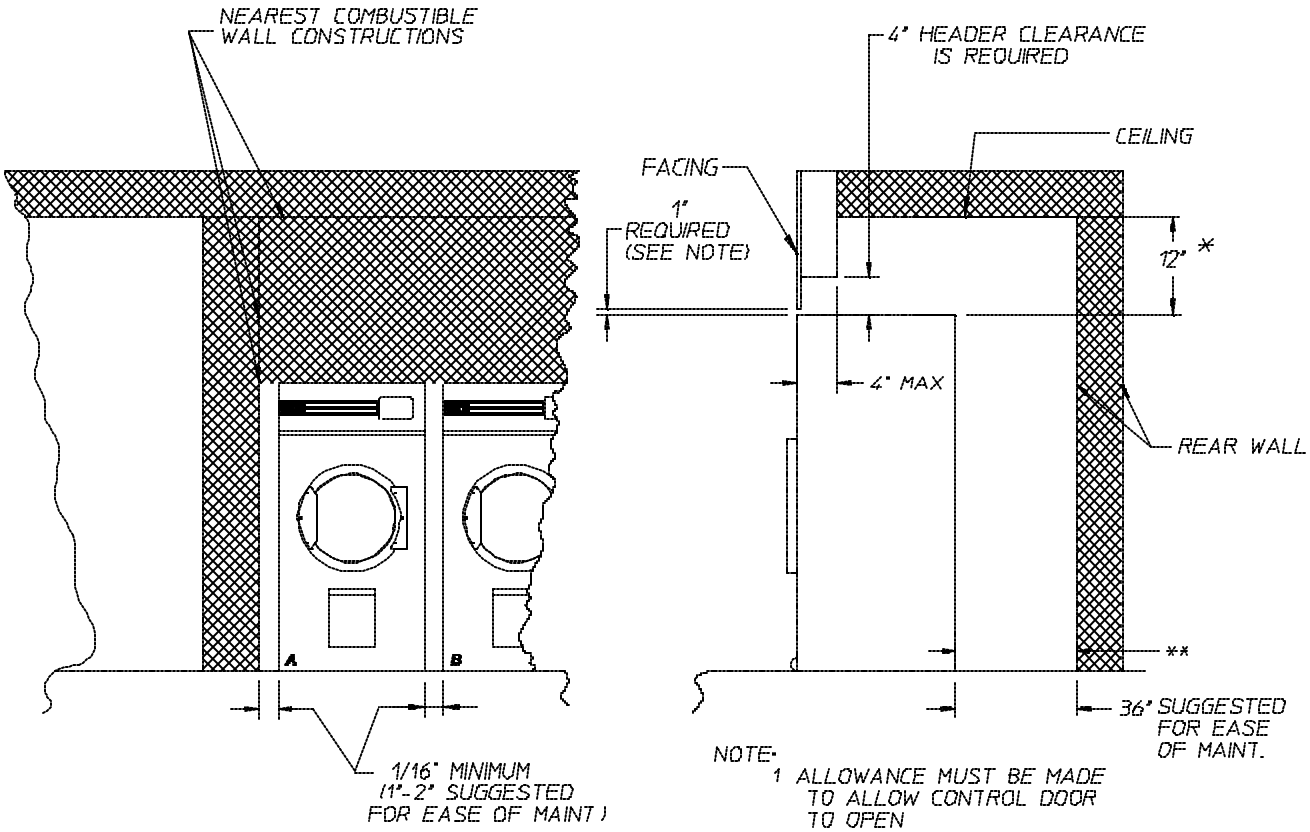
NOTE: It is recommended that this joint be taped as well as **ALL** other duct joints to prevent moisture and lint from escaping into the building.



REAR VIEW

C. DRYER ENCLOSURE REQUIREMENTS

Bulkheads and partitions **should be** made of noncombustible materials and **must be** located a minimum of twelve (12) inches (18-inches or more is recommended for ease of installation, maintenance , and service) above the dryer outer top, except along the front of the dryer which may be partially closed in if desired. The clearance between the bulkhead header and the dryer **must be** a minimum of four (4) inches and **must not** extend more than four (4) inches to the rear of the front. The bulkhead facing **must not** be closed in all the way to the top of the dryer. A one (1) inch clearance is required.



*IN CASES WHERE SPRINKLER HEADS ARE OVER THE DRYERS 18" IS SUGGESTED
**24" PERMITTED FOR INSTALLATIONS WITH HORIZONTAL VENTING

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INSTALLATION DRYER CLEARANCE TO ADJACENT WALL STRUCTURES

NOTE: Allowances ***must be*** made for opening the control door.

Dryers may positioned side wall to side wall. However, a 1/16" minimum allowance **must be** made for opening and closing of the control door and the lint door. It is suggested that the dryer be positioned about two (2) feet away from the nearest obstruction for ease of installation, maintenance, and service (to be measured from the back guard. (Refer to the **illustration above** for details.)

NOTE: Air considerations are important for proper and efficient operation.

IMPORTANT: Even though a minimum of only 12-inches is required, 18-inches or more is suggested. The additional clearance is advantageous for ease of installation and service.

IMPORTANT: When fire sprinkler systems are located above the dryers, a minimum of 18-inches above the dryer console (module) is required. Dryers may be positioned side wall to side wall however, a 1/16" minimum allowance is required between dryers (or wall) for ease of installation and maintenance. Allowances ***must be*** made for the opening and closings of the control door and the lint door.

D. EXHAUST REQUIREMENTS

1. General Exhaust Duct Work Information

Exhaust duct work **should be** designed and installed by a qualified professional. Improperly sized duct work will create excessive back pressure which results in slow drying, increased use of energy, overheating of the dryer, and shutdown of the burner by the airflow (sail) switches, burner hi-limits, or basket (tumbler) hi-heat thermostats.

CAUTION: DRYER ***MUST BE*** EXHAUSTED TO THE OUTDOORS.

CAUTION: IMPROPERLY SIZED OR INSTALLED EXHAUST DUCT WORK CAN CREATE A POTENTIAL FIRE HAZARD.

The exhaust duct work **should be** laid out in such a way that the duct work travels as directly as possible to the outdoors with as few turns as possible. Single or independent dryer venting is recommended.

When single dryer venting is used, the duct work from the dryer to the outside exhaust outlet **should not** exceed fifteen (15) feet. In the case of multiple (common) dryer venting, the distance from the last dryer to the outside exhaust outlet **should not** exceed fifteen (15) feet. The shape of the duct work is not critical so long as the minimum cross section area is provided. It is suggested that the use of 90º turns in ducting be avoided; use 30º and/or 45º angles instead. The radius of the elbows should preferably be 1-1/2 times the diameter of the duct. Including basket/dryer elbow connections or elbows used for outside protection from the weather, no more than one (1) elbow **should be** used for a horizontal exhaust duct run and no more than three (3) in a verticle exhaust duct run. If more elbows are used, the cross section area of the duct work **must be** increased in proportion to number of elbows added.

ALL duct work **should be** smooth inside with no projections from sheet metal screws or other obstructions which will collect lint. When adding ducts, the ducts to be added should overlap the duct to which it is connected. **ALL** duct work joints **must be** taped to prevent moisture and lint from escaping into the building. Additionally, inspection doors **should be** installed at strategic points in the exhaust duct work for periodic inspection and clean-out of lint from the duct work.

IMPORTANT: Exhaust back pressure measured by a manometer at the dryer exhaust duct area ***must not*** exceed 0.3 inches of water column.

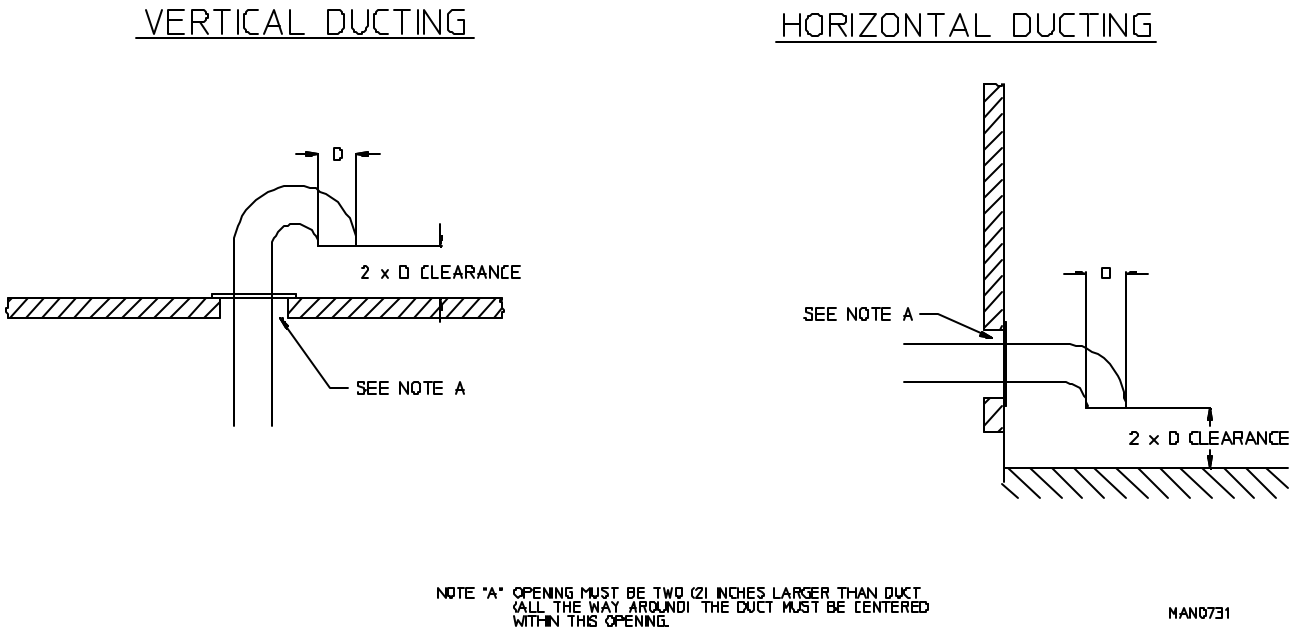
IMPORTANT: Exhaust duct work diameter for gas models is14-inches and 16-inches for steam models.

NOTE: Where the exhaust duct passes through a wall, ceiling, or roof made of combustible materials, the opening ***must be*** 2-inches larger (all the way around) than the duct. The duct ***must be*** centered within this opening.

a. Outside Duct Work Protection

1) To protect the outside end of horizontal duck work from the weather, a 90° elbow bent downward **should be** installed where the exhaust exits the building. If the exhaust duct work travels vertically up through the roof, it **should be** protected from the weather by using a 180° turn to point the opening downward. In either case, allow at least twice the diameter of the duct between the duct opening and the nearest obstruction.

IMPORTANT: ***DO NOT*** use screens or caps on the outside of opening of exhaust duct work.


VERTICAL DUCTING
D
2 x D CLEARANCE
SEE NOTE A
HORIZONTAL DUCTING
SEE NOTE A
D
2 x D CLEARANCE
NOTE "A" OPENING MUST BE TWO (2) INCHES LARGER THAN DUCT (ALL THE WAY AROUND) THE DUCT MUST BE CENTERED WITHIN THIS OPENING.
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2. Single Dryer Venting

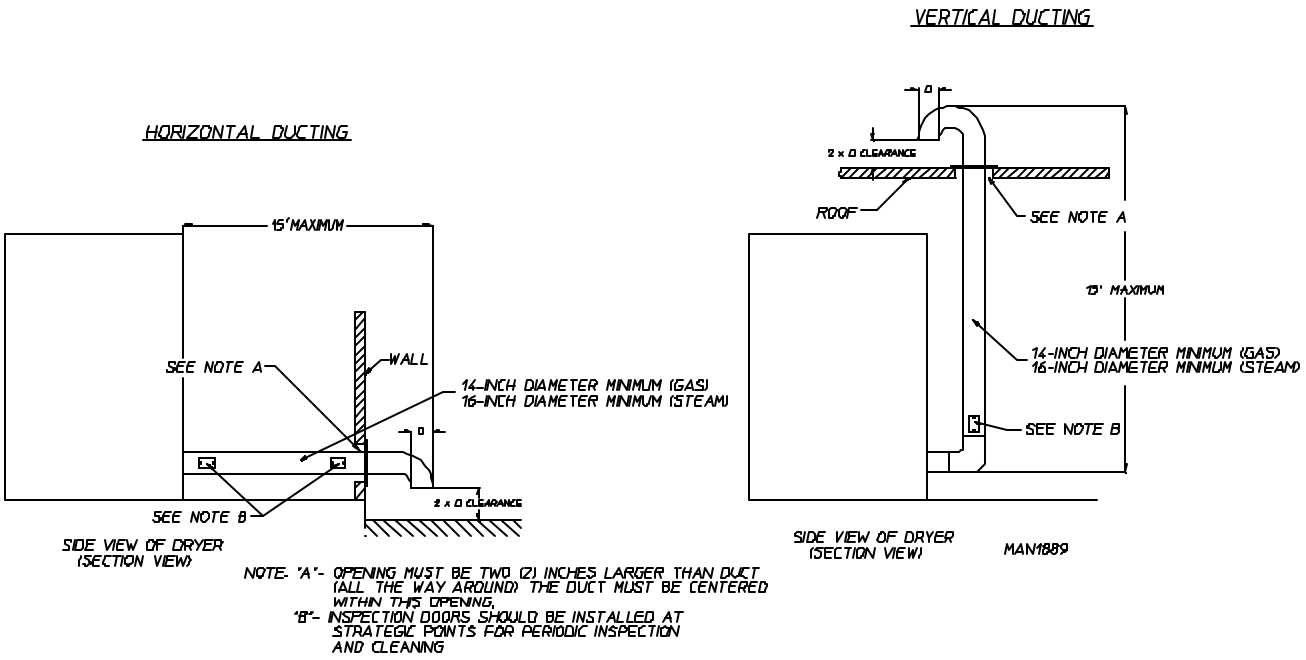
Where possible, it is suggested to provide a separate exhaust duct for each dryer. The exhaust duct **should be** laid out in such a way that the duct work travels as directly as possible to the outdoors with as few turns as possible. It is suggested that the use of 90° turns in ducting be avoided; use 30° and/or 45° angles instead. The shape of the exhaust duct work is not critical so long as the minimum cross section area is provided.

IMPORTANT: Minimum duct size for a gas dryer dryer is 14-inches for a round duct or 12-1/2" x 12-1/2" for a square duct. The minimum duct size for a steam dryer is 16-inches for a round duct or 14-1/2" x 14-1/2" for a square duct. Duct size ***must not*** be reduced anywhere down stream of the dryer.

IMPORTANT: Exhaust back pressure measured by a manometer at each basket (tumbler) exhaust duct area ***should not*** exceed 0.3 inches of water column.

It is suggested that the duct work from each dryer not exceed fifteen (15) feet with no more than one (1) elbow for a horizontal duct and three (3) for a vertical duct (including dryer connections and outside outlets). If the duct work exceeds fifteen (15) feet or has numerous elbows, the cross section area of the duct work **must be** increased in proportion to the length and number of elbows in it. In calculating duct size, the cross section area of a square or rectangular duct **must be** increased by twenty percent (20%) for each additional fifteen (15) feet. The diameter of a round exhaust duct **should be** increased ten percent (10%) for each additional fifteen (15) feet. Each 90° elbow is equivalent to an additional thirty (30) feet, and each 45° elbow is equivalent to an additional fifteen (15) feet.

SINGLE DRYER VENTING



IMPORTANT: For extended duct work runs, the cross section area of the duct work can only be increased to an extent. When the duct work approaches the maximum limits noted in this addendum, a professional heating venting air conditioning (HVAC) firm ***should be*** consulted for proper venting information.

ALL duct work **should be** smooth inside with no projections from sheet metal screws or other obstructions which will collect lint. When adding ducts, the duct to be added should overlap the duct to which it is to be connected. **ALL** duct work joints **must be** taped to prevent moisture and lint from escaping into the building. Inspection doors **should be** installed at strategic points in the exhaust duct work for periodic inspection and clean-out of lint from the duct work.

NOTE: Where the exhaust duct passes through a wall, ceiling, or roof made of combustible materials, the opening ***must be*** 2-inches larger (all the way around) than the duct. The duct ***must be*** centered within this opening.

a. Outside Duct Work Protection

1) To protect the outside end of horizontal duct work from the weather, a 90° elbow bent downward **should be** installed where the exhaust exits the building. If the exhaust duct work travels vertically up through the roof, it **should be** protected from the weather by using a 180° turn to point the opening downward. In either case, allow at least twice the diameter of the duct between the duct opening and the nearest obstruction.

IMPORTANT: ***DO NOT*** use screens or caps on the outside of opening of exhaust duct work.

3. Multiple Dryer (Common) Venting

If it is not feasible to provide separate exhaust ducts for each dryer, ducts from individual dryers may be channeled into a "common main duct". The individual ducts should enter the bottom or side of the main duct at an angle not more than 45° in the direction of air flow and **should be** spaced at least 38-1/4 inches apart. The main duct **should be** tapered, with the diameter increasing before each individual duct (14-inch minimum or 16-inch minimum for steam dryers) duct is added.

IMPORTANT: No more than four (4) dryers ***should be*** connected to one main common duct.

The main duct may be any shape so long as the minimum cross section is provided. The **illustration** on **page 10** shows the minimum cross section area for multiple dryer round or square venting. These figures **must be** increased ten (10) square inches when rectangular main ducting is used, and the ratio of duct width to depth **should not** be greater than 3-1/2 to 1. These figures **must be** increased in proportion if the main duct run to the last dryer to where it exhausts to the outdoors is unusually long (over fifteen [15] feet) or has numerous (more than one [1]) elbow in it. In calculating duct work size, the cross section area of a square or rectangular duct **must be** increased twenty percent (20%) for each additional fifteen (15) feet. The diameter of a round exhaust **must be** increased ten percent (10%) for each additional fifteen (15) feet. Each 90º elbow is equivalent to an additional thirty (30) feet and each 45º elbow is equivalent to an additional fifteen (15) feet.

IMPORTANT: For extended duct work runs, the cross section area of the duct work can only be increased to an extent. When the duct work approaches the maximum limits as noted in this addendum, a professional HVAC firm **should be** consulted for proper venting information.

IMPORTANT: Exhaust back pressure measured by a manometer at each dryer exhaust duct area ***should not*** exceed 0.3 inches of water column.

The duct **should be** smooth inside with no projections from sheet metal screws or other obstructions which will collect lint. When adding ducts, the duct to be added should overlap the duct to which it is to be connected. **ALL** duct work joints **must be** taped to prevent moisture and lint from escaping into the building. inspection doors **should be** installed at strategic points in the exhaust duct work for periodic inspection and clean-out of lint from the duct work.

NOTE: Where the exhaust passes through a wall, ceiling, or roof made of combustible materials, the opening ***must be*** 2-inches larger (all the way around) than the duct. The duct ***must be*** centered within this opening.

NOTE: Where the exhaust passes through a wall, ceiling, or roof made of combustible materials, the opening ***must be*** 2-inches larger (all the way around) than the duct. The duct ***must be*** centered within this opening.

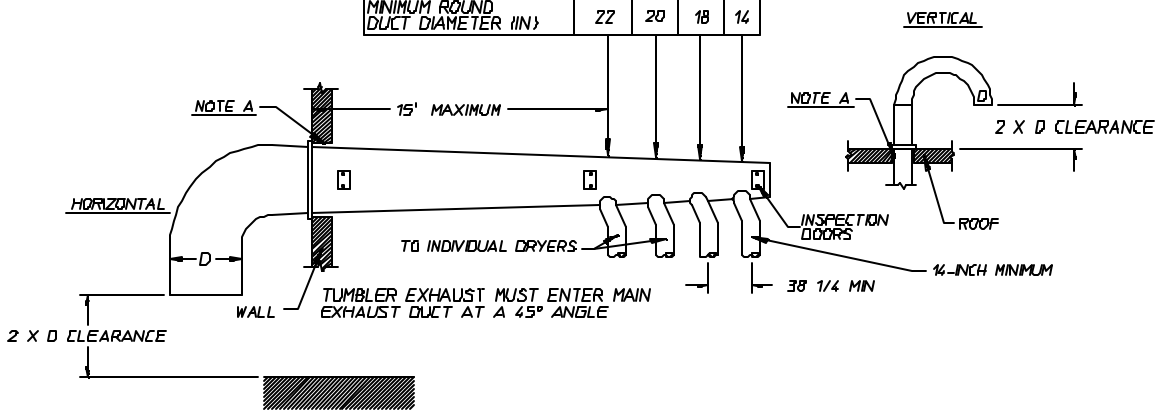
a. Outside Duck Work Protection

1) To protect the outside end of horizontal duct work from the weather, a 90° elbow bent downward **should be** installed where the exhaust exits the building. If the exhaust duct work travels vertically up through the roof, it **should be** protected from the weather by using a 180° turn to point the opening downward. In either case, allow at least twice the diameter of the duct between the duct opening and nearest obstruction.

IMPORTANT: ***DO NOT*** use screens, louvers, or caps on the outside of opening of exhaust duct work.

MULTIPLE DRYER VENTING (ADG-81) WITH 14" DIAMETER (1700 CFM) EXHAUST CONNECTIONS AT COMMON DUCT

NO. OF DRYERS	4	3	2	1
MINIMUM CROSS SECTION AREA (SQ.IN.)	380	315	255	155
MINIMUM ROUND DUCT DIAMETER (IN.)	22	20	18	14

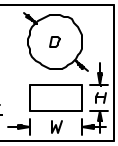


IMPORTANT NO MORE THAN 4 DRYERS CAN BE CONNECTED TO ONE COMMON DUCT (VENT).

FORMULAS TO CALCULATE DUCTING CROSS SECTIONAL AREA

CROSS SECTIONAL AREA OF A ROUND DUCT = 785 x D^2 WHERE D = DIAMETER OF THE DUCT

CROSS SECTIONAL AREA OF A RECTANGULAR DUCT = W x H WHERE W = WIDTH AND H = HEIGHT.



NOTE A OPENING MUST BE TWO (2) INCHES LARGER THAN DUCT (ALL THE WAY AROUND) THE DUCT MUST BE CENTERED WITHIN THIS OPENING

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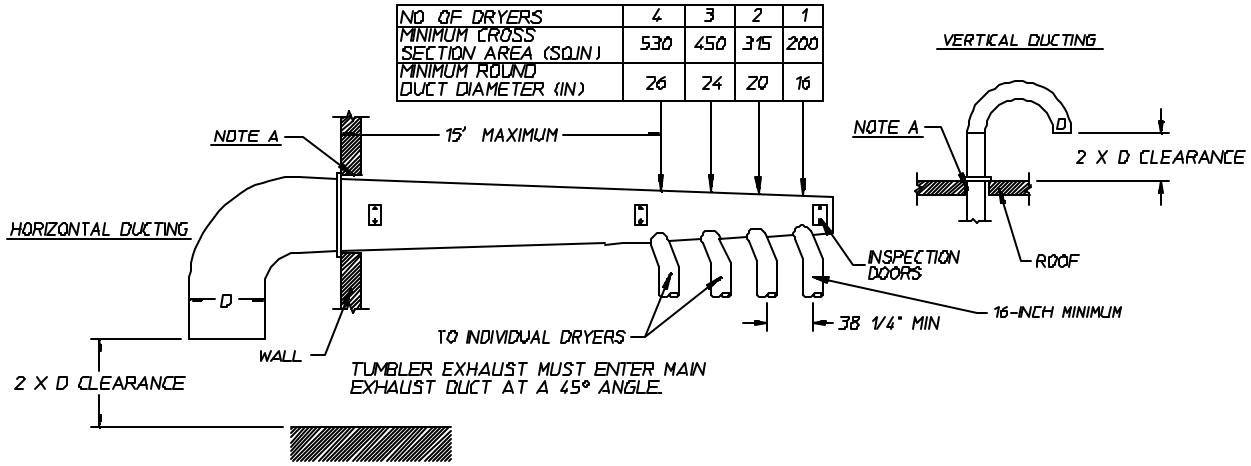
MULTIPLE DRYER VENTING (ML5-82) WITH 16" DIAMETER (2500 CFM) EXHAUST CONNECTIONS AT COMMON DUCT

NO. OF DRYERS	4	3	2	1
MINIMUM CROSS SECTION AREA (SQ.IN.)	530	450	315	200
MINIMUM ROUND DUCT DIAMETER (IN.)	26	24	20	16

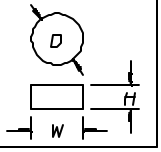


IMPORTANT NO MORE THAN 4 DRYERS CAN BE CONNECTED TO ONE COMMON DUCT (VENT).

FORMULAS TO CALCULATE DUCTING CROSS SECTIONAL AREA

CROSS SECTIONAL AREA OF A ROUND DUCT = 785 x D^2 WHERE D = DIAMETER OF THE DUCT

CROSS SECTIONAL AREA OF A RECTANGULAR DUCT = W x H WHERE W = WIDTH AND H = HEIGHT



NOTE A OPENING MUST BE TWO (2) INCHES LARGER THAN DUCT (ALL THE WAY AROUND) THE DUCT MUST BE CENTERED WITHIN THIS OPENING

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ADC 113080 **1**- 02/22/99-50 **2**- 05/25/99-100 **3*** 09/21/99-100
4- 02/25/00-150

American Dryer Corp.